A Textron Company

ALERT SERVICE BULLETIN 505-21-26

30 September 2021

MODEL AFFECTED: **505**

SUBJECT: **FUEL CELL VENT PREFLIGHT INSPECTION, ADDITION OF**

HELICOPTERS AFFECTED: **Serial numbers 65011 through 65234, 65236 through 65291, 65293 through 65310, 65312 through 65332, 65334 through 65346, 65348, 65351, 65354 through 65357, 65359.**

[Serial number 65235, 65292, 65311, 65333, 65347, 65349, 65350, 65352, 65353, 65358, 65360 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: Within 45 days upon receipt of this bulletin

DESCRIPTION:

Bell has received a field report where a damaged fuel cell vent fitting created an air flow vacuum out of the fuel cell causing the fuel indication to fluctuate proportional to the airspeed. The suction effects in such an occurrence could collapse the fuel cell bladder thereby indicating a higher fuel quantity total than actually exists. Jointly as the fuel cell empties during the flight, activation of the fuel low level sensor could be delayed.

This Alert Service Bulletin (ASB) adds a requirement in the Rotorcraft Flight Manual (RFM) Section 2, to inspect Fuselage – Front, Vents and Drains – Condition and Security as part of the preflight check.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 1 man-hour is required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center.

Part Number	Nomenclature	Qty (Note)
BHT-505-FM-1 Rev. 8	505 Rotorcraft Flight Manual Revision 8	1 (1)
BHT-505-FM-2 Rev. 2	505 Rotorcraft Flight Manual Revision 2	1 (2)

NOTES:

1. BHT-505-FM-1 Rev. 8 applicable 65011 through 65169, 65171 through 65300
2. BHT-505-FM-2 Rev. 2 applicable 65170, 65301 and subsequent.

Consumable Material:

None required.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-505-FM-1, 505 Rotorcraft Flight Revision 8
BHT-505-FM-2, 505 Rotorcraft Flight Revision 2
BHT-505-MD-1, Manufacturer's Data Section 1
BHT-505-MD-2, Manufacturer's Data Section 1

PUBLICATIONS AFFECTED:

BHT-505-FM-1, 505 Rotorcraft Flight Revision 7
BHT-505-FM-2, 505 Rotorcraft Flight Revision 1

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.

2. Inspect the fuel vent tube for damage and ensure the bevel (scarf) is facing forward (Figure 1). The tube should have smooth edges and be free of chips or cracks.

3. Insert applicable BHT-505-FM-1 Rev. 8 or BHT-505-FM-2 Rev. 2 Rotorcraft Flight Manual Revision.

4. Communicate to the Model 505 pilots and maintenance personnel the contents of the newly inserted Rotorcraft Flight Manual Revision change.

    (1) Review paragraph 2-3-B-8, Fuselage – Front, Item 10, Vents and Drains – Condition and Security.

    (2) Familiarize crew with fuel cell vent criteria for shape and opening facing forward (Figure 1).

        (a) The Manufacturer's Data BHT-505-MD-1 and BHT-505-MD-2, Section 1, paragraph 1-24-C offers the following description.

Both the forward and aft vent lines are joined into a single vent line which exits at the bottom of the fuselage on the left side of the control tunnel. A scarf cut on the outlet of the vent line is oriented forward to slightly pressurize the fuel vent system while in forward flight.

5. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.

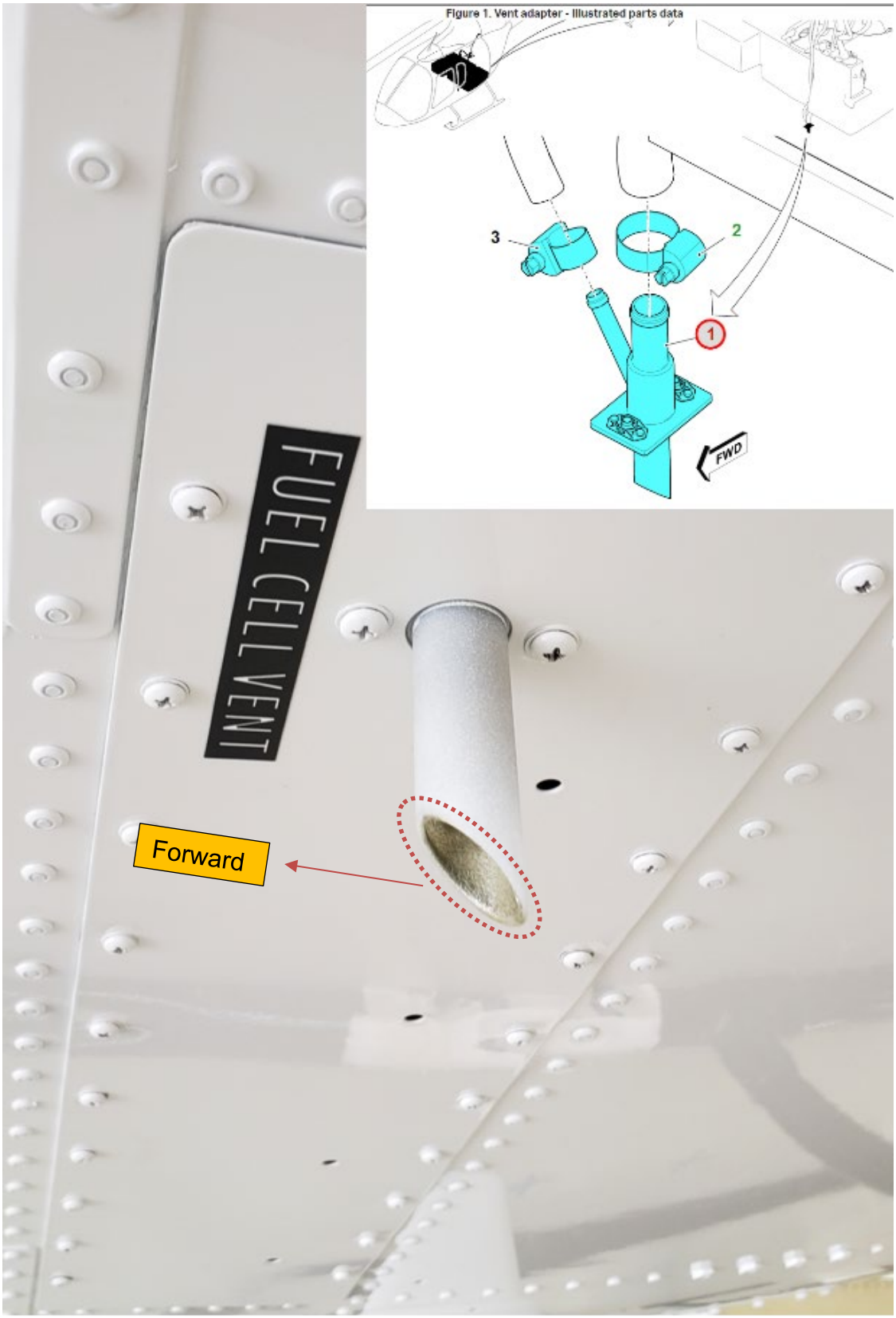

Figure 1 – Fuselage – Front